

REMARKS

Claims 1, 3-12 and 14-22 are pending in this application. Claims 1 and 12 have been amended. Claims 8 and 19 have been canceled.

Claims 1, 8, 12, and 19 were rejected under 35 USC §102(b) as being anticipated by Kasson (U.S. Patent No. 5,450,216). Claims 3-7 and 14-18 were rejected under 35 USC §103(a) as being unpatentable over Kasson (U.S. Patent No. 5,450,216) in view of Eschbach (U.S. Patent No. 6,342,951) and Lee (US Patent 5,012,333). Claims 9 and 20 were rejected as being under 35 USC §103(a) as being unpatentable over Kasson (U.S. Patent No. 5,450,216) in view of Gruzdev (US Patent 6,868,179). Claims 10 and 21 were rejected under 35 USC §103(a) as being unpatentable over Kasson (U.S. Patent No. 5,450,216) in view of Moroney (U.S. Publication No. 2002/0186387). Claims 11 and 22 were rejected under 35 USC §103(a) as being unpatentable over Kasson (U.S. Patent No. 5,450,216) in view of Eschbach (U.S. Patent No. 6,342,951). Applicant respectfully disagrees.

Independent Claim 1, as amended, claims a luminance dynamic range system, comprising: an image processing module for transforming an input image into a luminance component L_{in} and chrominance components, C_1 and C_2 ; a spatial low pass filter, responsive to L_{in} for outputting a filtered luminance component L_f , wherein L_f is a function only of L_{in} ; and a luminance compression module responsive to L_f and L_{in} for performing luminance compression on the input component L_{in} to output a compressed luminance signal L_{out} that is within an achievable luminance range of an output device; wherein the luminance compression module combines two compression functions $L_{comp1}(L_{in})$ and $L_{comp2}(L_{in})$ via a blending function $\alpha(L_f)$; wherein $L_{comp1}(L_{in})$, $L_{comp2}(L_{in})$ and $\alpha(L_f)$ are all 1-dimensional functions only of L_{in} ; and wherein $L_{comp1}(L_{in})$ and $L_{comp2}(L_{in})$ are both designed to map the luminance dynamic range of an input image to the more limited dynamic range of an output device.

Claim 1 has been amended to clarify that the individual compression and blending functions are all 1-dimensional functions of input luminance alone. Nothing in Kasson teaches or suggests the individual compression and blending functions are all 1-

dimensional functions of input luminance alone. Kasson discloses methods where the blending and/or compression functions are multidimensional functions depending on both luminance and chrominance signals. Corresponding modification have also been made to independent claim 12.

Claims 1 and 12 have also been amended to include the purpose of the two compression functions, i.e. to map the dynamic range of an input image to that of an output device. An identity function such as that described in Kasson does not qualify as a compression function.

The preamble of Claims 1 and 12 have been amended to clarify that the system and method addresses a luminance dynamic range mapping problem (inherently a 1-dimensional problem), rather than a gamut-mapping problem (inherently a 3-dimensional problem). With the proposed system and method, image colors that have undergone the luminance mapping may still lie outside the 3-dimensional gamut of the output device, and would have to be mapped to the gamut through another process. Kasson on the other hand describes a gamut mapping method/system where pixels must be mapped to the 3D gamut of the device. Hence most of the operations taught by Kasson are multidimensional in nature.

Nothing in Eschbach or Lee or Moroney or Gruzdev overcomes the lack of teachings in Kasson.

No additional fee is believed to be required for this amendment; however, the undersigned Xerox Corporation attorney hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025.

Reconsideration of this application and allowance thereof are earnestly solicited. In the event the Examiner considers a personal contact advantageous to the disposition of this case, the Examiner is requested to call the undersigned Attorney for Applicant, Jeannette Walder.

Respectfully submitted,

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